REMARKS

I. INTRODUCTION

In response to the Office Action dated October 5, 2010, claim 25 has been amended. Claims 1-32 remain in the application. Entry of these amendments, and re-consideration of the application, as amended, is requested.

II. CLAIM AMENDMENTS

Applicants' attorney has made amendments to the claims as indicated above. These amendments were made solely for the purpose of clarifying the language of the claims, and were not required for patentability or to distinguish the claims over the prior art.

III. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claims 1, 14, 27, and 31 are generally directed to selecting nodes relevant to a graphical image component. More specifically, a plurality of processing nodes are used to produce and display a first two-dimensional image frame (of a clip of image frames) wherein a plurality of image components makes up the first image frame. Further, the first image frame is generated by processing the plurality of data processing nodes. The user then indicates/selects a particular image component from the displayed image components. As amended, the selection consists of specifying 2D user input data (i.e., x,y input data – specifying a location on the display using a mouse/cursor). In response to the indicating/selecting, the system automatically selects a particular data processing node that was used to generate the indicated/selected image component. Thereafter, editing tools that are relevant to the particular selected processing node are displayed.

Support in the specification and drawings for the independent claims are shown in the following table:

CLAIM LIMITATION	SPECIFICATION/DRAWING SUPPORT
1. Apparatus for processing image data comprising processing means, input	[0001]-P1,L5-6; FIG. 1-108, 105, 106, 103; [0032]-[0033]-P5,L20-P6,L16; FIG. 2-

means and display means, wherein said image data is defined by a plurality of data processing nodes arranged in a hierarchical structure and said processing means is configured to perform the steps of:	201,202; [0034]-P6,L18-P7,L5; [0036]-P7,L18-P8,L1; [0044]-P10,L1-12; FIG. 4-403; FIG. 7-; 701-714; [0060]-P14,L21- L24.
generating a first two-dimensional (2D) image frame of a clip of image frames, wherein a plurality of image components makes up the first image frame, by means of processing said plurality of data processing nodes;	FIG. 4-403; FIG. 5-501-503; [0050]-[0051]-P12,L1-13; FIG. 8; [0065]-[0074]-P16,L22-P20,L7;
outputting said first image frame to said display means;	[0051]-P12, L5-13; FIG. 5-503; FIG. 6; [0054]-P13,L6-10; [0082]-P22,L8-15; FIG. 10
receiving, via said input means, first 2D user input data indicating one of said plurality of image components, wherein said first 2D user input data comprises x,y coordinate input data;	[0089]-P24,L18-P25,L1; FIG. 11-1101; [0099]-P28,L14-P29,L2; FIG. 11b-1121
in response to said receiving, automatically selecting a first data processing node considered to be appropriate to said indicated image component; and	[0089]-P24,L18-P25,L1; FIG. 11-1101-1103; [0091]-P25,L10-16; FIGs. 11a-11b; [0097]-P27,L15-24; [0099]-P28,L14-P29,L2; [0104]-P30,L25-P31,L3; [0114]-[0115]-P34,L21-P35,L6; FIG. 14;
displaying editing tools relevant to said first data processing node.	FIG. 11-1103; [0091]-P25,L10-16; [0116]-[0117]-P35,L8-P36,L10; FIG. 14-15
14. A method of processing image data, wherein:	[0001]-P1,L5-6; FIG. 1-108, 105, 106, 103; [0032]-[0033]-P5,L20-P6,L16; FIG. 2-201,202; [0034]-P6,L18-P7,L5; [0036]-P7,L18-P8,L1; [0044]-P10,L1-12; FIG. 4-403;

	FIG. 7-; 701-714; [0060]-P14,L21- L24.
a two-dimensional (2D) image frame of a clip of image frames, wherein a plurality of image components makes up the image frame, and wherein said image frame is generated by processing a plurality of data processing nodes arranged in a hierarchical structure;	[0001]-P1,L5-6; FIG. 1-108, 105, 106, 103; [0032]-[0033]-P5,L20-P6,L16; FIG. 2-201,202; [0034]-P6,L18-P7,L5; [0036]-P7,L18-P8,L1; [0044]-P10,L1-12; FIG. 4-403; FIG. 5-501-503; [0050]-[0051]-P12,L1-13; FIG. 7-; 701-714; [0060]-P14,L21- L24; FIG. 8; [0065]-[0074]-P16,L22-P20,L7;
said image frame is displayed to a user;	[0051]-P12, L5-13; FIG. 5-503; FIG. 6; [0054]-P13,L6-10; [0082]-P22,L8-15; FIG. 10
said user manually selects one of said plurality of image components for adjusting, wherein said manual selection comprises x,y coordinate input data;	[0089]-P24,L18-P25,L1; FIG. 11-1101; [0099]-P28,L14-P29,L2; FIG. 11b-1121
in response to said selecting, a first data processing node used to generate said image component is automatically selected; and	[0089]-P24,L18-P25,L1; FIG. 11-1101-1103; [0091]-P25,L10-16; FIGs. 11a-11b; [0097]-P27,L15-24; [0099]-P28,L14-P29,L2; [0104]-P30,L25-P31,L3; [0114]-[0115]-P34,L21-P35,L6; FIG. 14;
editing tools relevant to said first data processing node are displayed to said user.	FIG. 11-1103; [0091]-P25,L10-16; [0116]-[0117]-P35,L8-P36,L10; FIG. 14-15
27. In a computer system having a graphical user interface including a display and a user interface selection device, a method of processing image data, wherein	[0001]-P1,L5-6; FIG. 1-108, 105, 106, 103; [0032]-[0033]-P5,L20-P6,L16; FIG. 2-201,202; [0034]-P6,L18-P7,L5; [0036]-P7,L18-P8,L1; [0044]-P10,L1-12; FIG. 4-403; FIG. 7-; 701-714; [0060]-P14,L21- L24.
a two-dimensional (2D) image frame of a clip of image frames, wherein a plurality of	[0001]-P1,L5-6; FIG. 1-108, 105, 106, 103; [0032]-[0033]-P5,L20-P6,L16; FIG. 2-

image components makes up the image frame, and wherein the image frame is generated by processing a plurality of data processing nodes arranged in a hierarchical structure;	201,202; [0034]-P6,L18-P7,L5; [0036]-P7,L18-P8,L1; [0044]-P10,L1-12; FIG. 4-403; FIG. 5-501-503; [0050]-[0051]-P12,L1-13; FIG. 7-; 701-714; [0060]-P14,L21- L24; FIG. 8; [0065]-[0074]-P16,L22-P20,L7;
said image frame is displayed to a user by means of said display;	[0051]-P12, L5-13; FIG. 5-503; FIG. 6; [0054]-P13,L6-10; [0082]-P22,L8-15; FIG. 10
said system responds to manual operation of said user interface selection device when said user manually selects one of said plurality of image components for adjusting by inputting x,y coordinate input data;	[0089]-P24,L18-P25,L1; FIG. 11-1101; [0099]-P28,L14-P29,L2; FIG. 11b-1121
in response to said manual selection, said system automatically identifies a first data processing node used to generate the image component that has been selected; and	[0089]-P24,L18-P25,L1; FIG. 11-1101-1103; [0091]-P25,L10-16; FIGs. 11a-11b; [0097]-P27,L15-24; [0099]-P28,L14-P29,L2; [0104]-P30,L25-P31,L3; [0114]-[0115]-P34,L21-P35,L6; FIG. 14;
said system updates said graphical user interface to present editing tools relevant to said first data processing node.	FIG. 11-1103; [0091]-P25,L10-16; [0116]-[0117]-P35,L8-P36,L10; FIG. 14-15
31. A computer-readable medium comprising a computer program storage device storing instructions that when read and executed by a computer, results in the computer performing a method for processing image data, the method comprising:	[0001]-P1,L5-6; FIG. 1-108, 105, 106, 103; [0032]-[0033]-P5,L20-P6,L16; FIG. 2-201,202; [0034]-P6,L18-P7,L5; [0036]-P7,L18-P8,L1; [0044]-P10,L1-12; FIG. 4-403; FIG. 7-; 701-714; [0060]-P14,L21- L24.
generating a two-dimensional (2D) image frame of a clip of image frames, wherein	[0001]-P1,L5-6; FIG. 1-108, 105, 106, 103; [0032]-[0033]-P5,L20-P6,L16; FIG. 2-

a plurality of image components makes up the image frame, by processing a plurality of data processing nodes arranged in a hierarchical structure;	201,202; [0034]-P6,L18-P7,L5; [0036]-P7,L18-P8,L1; [0044]-P10,L1-12; FIG. 4-403; FIG. 5-501-503; [0050]-[0051]-P12,L1-13; FIG. 7-; 701-714; [0060]-P14,L21- L24; FIG. 8; [0065]-[0074]-P16,L22-P20,L7;
displaying said image frame to a user;	[0051]-P12, L5-13; FIG. 5-503; FIG. 6; [0054]-P13,L6-10; [0082]-P22,L8-15; FIG. 10
responding to a user's manual selection of one of said plurality of image components for adjustment, wherein said manual selection comprises x,y coordinate input data;	[0089]-P24,L18-P25,L1; FIG. 11-1101; [0099]-P28,L14-P29,L2; FIG. 11b-1121
in response to said selection, automatically identifying a first data processing node used to generate said image component that has been selected; and	[0089]-P24,L18-P25,L1; FIG. 11-1101-1103; [0091]-P25,L10-16; FIGs. 11a-11b; [0097]-P27,L15-24; [0099]-P28,L14-P29,L2; [0104]-P30,L25-P31,L3; [0114]-[0115]-P34,L21-P35,L6; FIG. 14;
presenting editing tools relevant to said first data processing node to said user.	FIG. 11-1103; [0091]-P25,L10-16; [0116]-[0117]-P35,L8-P36,L10; FIG. 14-15

IV. CLAIM OBJECTIONS

On page (2) of the Office Action, claim 25 was objected to for a typographical error. Applicants have amended claim 25 and submit that the objection is now moot.

V. SPECIFICATION OBJECTIONS/REJECTIONS

On page (2) of the Office Action, claims 31-32 were objected to for the terms "computer-readable medium". Applicants respectfully disagree with and traverse such an objection. The same objection was asserted by the Patent Office in the prior Office Action. In response thereto, Applicants amended the specification (consistent with the claims as filed in the original

application) by adding a paragraph that included the term "computer-readable medium". Such amendments were not rejected and hence were entered into the file wrapper of the above-identified application. Applicants therefore submit that the objection is moot.

In addition, claims 1, 14, 27, and 31 were objected to for the specification failing to provide antecedent basis for the terms "two-dimensional (2D) image frame" and "2D user input". In addition, claims, 1, 14, 27, and 31 were rejected under 35 USC 112, first paragraph, for lack of enablement in the specification. The Action asserts that the specification does not define nor make use of the terms "first two-dimensional image frame". The Action further asserts that the prior response that 2D information is mapped to application data is made up of node data which is 3D data and not 2D data. The Action continues and asserts that throughout the whole disclosure, the invention is concerned with 3D space and one of ordinary skill in the art would not have been able to make and use the invention to only encompass 2D image frames in 2D space when the entire disclosure was concerned with functionality for 3D image frames in 3D space.

Applicants respectfully disagree with and traverse such objections. Applicants note that the application is directed towards processing image data defined by a hierarchical structure of data processing nodes (see [0001]). More specifically, the background of the invention describes the ability to enhance movie production or video film with special effects (see [0002]). Such effects may include a blue screen in video environments and green screen in cinematographic environments whereby actors are filmed in a studio configured with a blue or green saturated screen in order to generate a clip of foreground image frames. A background clip is also filmed and composited with the foreground image to produce a complete composited clip (see [0003]). Nodes are used to perform the processing using input clips and output clips and to specify the various operations performed on the clips (see [0004]-[0006]).

The detailed description further elaborates on how there are image components within each image frame that are defined by a hierarchy of data processing nodes (see [0044]) and how an image frame and its components are generated by processing respective data processing nodes (see [0045]). Paragraph [0046] describes how the node data can be 3D models as a plurality of polygons but can also be bitmap files (which are 2D and not 3D) that are applied as textures to the 3D models. Paragraph [0047] describes how the node data can be positional data for the 3D

model within 3D space. However, paragraph [0047] also states that the node data is RGB data defining an image frame derived from film and stored in RAID. As is known in the art, RGB data is 2D data and not 3D- RGB data represents the color of a pixel to be displayed on a screen and does not have a depth component.

In addition, the text describes how image components are output to a video display as an image frame for a user to edit (see [0051]). A display is not a 3D display but is a 2D display. The elements of the display and a graphical user interface of the display are described with respect to FIG. 6 and paragraphs [0054]-[0059] and includes a television or film – all 2D display elements. Applicants acknowledge that various paragraphs of the specification then describe how to process a 3D model and orient objects in 3D space. However, the output to a display is not a 3D display device but is a 2D display. The display screen itself is a 2D image that is displayed to a user. Nothing in the specification even hints at a 3D display screen – it is a 2D display of a 3D model. Accordingly, the claims recite generating a 2D image frame of a clip of image frames and outputting such a 2D frame to a display means.

The 2D nature of the display device is explicitly supported in paragraph [0099] of the originally filed application which provides that x,y input data 416 is read and processed. The explicit use of "x,y input data" in the specification is clearly a 2D input – i.e., the user is specifying a location on the display device (i.e., an x,y coordinate) using a keyboard, graphic tablet or mouse (see paragraph [0049]). Further, the fact that a mouse or tablet is used to specify input data further clarifies the 2D nature of the user's input data. Accordingly, there is explicit support in the specification for the references to the 2D input and 2D presentation of the data. Again, while the model being displayed may be 3D, to display such a 3D model, a 2D image is displayed on a presentation/display device that is not a 3D display. Applicants in fact submit that if the invention were restricted to a 3D environment as asserted in the Office Action, there would be a lack of support for specifying a location in the 3D space and how to display the data.

VI. PRIOR ART REJECTIONS

In paragraphs (4)-(5) of the Office Action, claims 1-32 were rejected under 35 U.S.C. §102(e) as being anticipated by Grinstein, U.S. Patent No. 6,714,201 (Grinstein).

Specifically, independent claims 1, 14, 27, and 31 were rejected as follows:

> **As to independent claims 1, 14, 27 and 31** (e.g. apparatus, method, system, computer-readable medium, etc), Grinstein teaches apparatus for processing image data (col.74, line 43 – col.75, line 29) comprising processing means, input means and display means (col.68,lines 37-57), wherein said image data is defined by a plurality of data processing nodes arranged in a hierarchical structure (col.55,lines 1-10; nodes displayed in tree view window 530) and said processing means is configured to perform the steps of: generating a first image frame of a clip image frames wherein a plurality of image components makes up the first image frame by means of processing said plurality of data processing nodes (col.53,lines 13-20; the Mojo gui window provides a 3d hierarchical graphic model that is capable of showing animation (known as a group of frames; col.6,lines 12-23 and Table 2 shows evidence that these 3D models correspond to frames of animation "image frame of a clip of image frames") within the window 503 where the user may interact with the 3d hierarchical graphic model and the corresponding tree view to manipulate animations);
>
> outputting said first image frame to said display means (figure 34; depicts the display of the 3d hierarchical graphic model and tree view of nodes corresponding to 3d model for the current animation frame of frames the user is editing or viewing); receiving, via said input means, first user input data indicating one of said plurality of image components (col.55,lines 43-52), wherein said first user input data comprises x, y coordinate input data (fig. 16; col.50, line 50; wherein the use is able to input x and y coordinate only as well as input other information such as z, other and random coordinate information); in response to said receiving, automatically selecting a first data processing node considered to be appropriate to said indicated component (col.55,lines 43-60) displaying editing tools relevant to said first data processing node; and outputting said second image frame to said display means (col.55,line 61 – col.56,line 24; the user is able to select a node or object and be given a pop-up dialog box displaying edit tools to be chosen and manipulated by the user).
>
> Grinstein teaches computer-readable medium comprising a computer program storage device storing instructions that when read and executed by a computer, results in the computer performing a method for processing image data (col.68,lines 37-67; various examples of multiple platforms at which the system may be implemented on and how the system is implemented).

Applicant traverses the above rejections for one or more of the following reasons:

(1) Grinstein fails to teach, disclose or suggest a 2D image plane;

(2) Grinstein fails to teach, disclose or suggest 2D x,y input data; and

(3) Grinstein fails to teach, disclose or suggest selecting a data processing node used to generate an identified image component.

Independent claims 1, 14, 27, and 31 are generally directed to selecting nodes relevant to a graphical image component. More specifically, a plurality of processing nodes are used to produce and display a first two-dimensional image frame (of a clip of image frames) wherein a plurality of image components makes up the first image frame. Further, the first image frame is generated by processing the plurality of data processing nodes. The user then indicates/selects a particular image component from the displayed image components. As amended, the selection consists of specifying 2D user input data (i.e., x,y input data). In response to the

indicating/selecting, the system automatically selects a particular data processing node that was used to generate the indicated/selected image component. Thereafter, editing tools that are relevant to the particular selected processing node are displayed.

Consequently, there are several unique and non-obvious features that distinguish the present invention from that of the cited art. Firstly, the image that is being worked with is a 2D image. In addition, the user specifies 2D coordinates (i.e., x,y coordinate input data) for specifying a particular image component. Thereafter, the specific node that was used to generate the identified image component is automatically selected. Thus, since the nodes are used to actually generate the particular image components that are displayed, the identification (by the user) of a particular x,y location on the image enables the automatic selection of the node(s) actually used to generate that particular component. Thus, the user is not moving around in a 3D model, nor is the user looking at a representation of motion for the image – instead, the user is examining a 2D image and specifies a particular 2D location in that image – in response, a particular image component is identified as well as the node used to generate that 2D image component.

The cited reference does not teach nor suggest these various elements of Applicants' independent claims. Grinstein is directed towards modeling motion in a computer application (see title and abstract). Grinstein consistently refers to a 3D model that is capable of showing animation (see col. 6, lines 12-23; col. 53, lines 13-20; and FIG. 33). The Office Action relies on FIG. 33 and FIG. 34 to reject these various claim limitations. Such figures illustrate a scene view window 503 illustrating a 3D hierarchical graphic model 502 of a running man. The user clicks in the scene window 503 (on a portion of model 502) and thereby selects a particular part that has motion associated therewith (see col. 55, lines 53-62). As a result, a bounding box 544 is drawn around the node/part in the scene window 503 (see col. 55, lines 53-62). In addition, in the tree-view window 530, a selected node 536AA is highlighted (see col. 55, lines 53-62).

However, what is of particular importance is that the tree-view window 530 does not display nodes used to actually generate the image displayed in scene view 503. Instead, tree-view window 530 illustrates model nodes 537 and the ability to define motion for such nodes (see FIG. 34 and supporting text in col. 55, lines 43-col. 56, line 24). Again, Grinstein is not directed towards generating a 2D image using specific nodes and the ability to use the nodes

used to generate a selected image component. Instead, Grinstein is directed towards defining motion for a 3D model. As set forth in col. 55, line 60-col. 56, line 24 (and corresponding FIG. 38), the user has selected a left sleeve parent node. Further, the user has right clicked on a swing motion node 540AA which causes a motion options menu to be displayed for specifying parameters that define the motion for the swing movement/motion. Again, the nodes displayed in tree-view window 530 are not nodes used to actually generate a 2D image as explicitly required in the present claims. Further, Grinstein's user is not specifying 2D input data but instead is selecting a part that has a corresponding motion.

In response to the above, the final Office Action asserts that Grinstein teaches the receiving of the 2D user input data (and in response to the receiving, the auto selection of a first data processing node used to generate the component) based on fig. 16, col. 50, line 50. FIG. 16 illustrates a basic tab of a spin motion dialog box used with a motion editor/viewer (see col. 7, lines 16-18). Col. 50, lines 47-54 describes how the axis, speed, and displacement of motion can be selected in the tab and the x, y, or z axis may be selected (or other axis vectors besides the standard XYZ). However, what is clearly lacking from such text is ability to receive 2D user input data – i.e., x,y coordinate data that indicates a particular image component on a frame of image data. Instead, the text describes the ability to select an axis to be used for motion.

With respect to the selection of a data processing node used to generate the image component identified by the user, the Office Action relies on col. 55, lines 43-60. This step provides the ability for a user to click on a portion of the model and in response, a bounding box id is displayed around an upper right leg parent node or other nodes. What is clear from such text is that the box is around a particular portion of model that is used to simulate motion. Rather than selecting a data processing node that is used to generate an image component (from a single frame of a clip of image frames) as claimed, Grinstein provides for selecting a node that controls the motion of a portion of the model that is displayed. Grinstein's selected node is not used to actually generate a particular image component but instead is used to control the motion for that portion of the model. Further, rather than displaying editing tools relevant to the first node, Grinstein displays a motion options menu to again control the motion for the selected portion of the model (see col. 55, line 60-col. 56, line 4).

Again, the presently claimed invention is directed towards an image frame from a clip of multiple image frames. Such an image frame is a single frame from a clip and not a live/moving model. The user selects a particular pixel (i.e., x,y input data) in the input frame, the node used to generate the image component containing that pixel is selected, and tools for that node are displayed. Grinstein relates to a moving/live model, the user selects an area of the model, and a node used to control the motion for that particular area of the model is selected and tools controlling the motion for the model can be displayed. Such a teaching using a live motion model is not similar to the presently claimed invention, explicitly or implicitly. There is simply no ability in Grinstein to identify a node that is used to actually generate an image component – only a node that control the motion for a selected portion of a model – a different concept, in a different environment, using different tools from the present invention. Such an approach in Grinstein also solves a different problem – that of how to easily control motion vs. that of how to find/edit a node used to generate a particular image component displayed in a frame from a clip of frames. Thus, Grinstein's solution solves a different problem in a different manner.

In view of the above, Applicants submit that Grinstein is directed towards a different environment (i.e., a live model v. an image processing environment – see Grinstein title and Abstract) and fails to provide, teach, disclose, or suggest various explicitly claimed limitations. As a result, Grinstein fails to establish a prima facie case of unpatentability and is clearly in error.

Moreover, the various elements of Applicants' claimed invention together provide operational advantages over Grinstein. In addition, Applicants' invention solves problems not recognized by Grinstein.

Thus, Applicants submit that independent claims 1, 14, 27 and 31 are allowable over Grinstein. Further, dependent claims 2-13, 15-26, 28-30 and 32 are submitted to be allowable over Grinstein in the same manner, because they are dependent on independent claims 1, 14, 27 and 31, respectively, and thus contain all the limitations of the independent claims. In addition, dependent claims 2-13, 15-26, 28-30 and 32 recite additional novel elements not shown by Grinstein.

VII. CONCLUSION

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,

Christopher Vienneau et al.

By their attorneys,

GATES & COOPER LLP

Howard Hughes Center
6701 Center Drive West, Suite 1050
Los Angeles, California 90045
(310) 641-8797

Date: December 6, 2010

By: /Jason S. Feldmar/
Name: Jason S. Feldmar
Reg. No.: 39,187